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CLAIMS

- 1. An antibody or a functional fragment of an antibody comprising at least the variable domains of the heavy and light chains, characterized in that it binds specifically to the uracil-DNA-glycosylase inhibitor (Ugi) of the sequence SWISSPROT P14739 and in that it inhibits the binding between uracil-DNA-glycosylase (UDG) and its inhibitor, Ugi.
 - 2. The antibody or antibody fragment as claimed in claim 1, characterized in that it is chosen from monoclonal antibodies, polyclonal antibodies and the Fab, Fv and scFv fragments.
 - 3. The antibody as claimed in claim 2, characterized in that it is a polyclonal antibody obtained by immunizing an animal with a preparation of recombinant uracil-DNA-glycosylase inhibitor.
 - 4. The use of an antibody or an antibody fragment as claimed in any one of claims 1 to 3, as antagonist of the binding between uracil-DNA-glycosylase and its inhibitor.
 - 5. The use as claimed in claim 4, for decontaminating nucleic acid amplification reactions, in particular polymerase chain reactions.
 - 6. A method for amplifying decontaminated nucleic acids, characterized in that it comprises the following steps:
- a) incubation of a reaction mixture containing: a nucleic acid sample to be amplified, the reagents necessary for its amplification including deoxyuridine triphosphate nucleotides, uracil-DNA-glycosylase, uracil-DNA-glycosylase inhibitor, and

an anti-uracil-DNA-glycosylase inhibitor antibody or antibody fragment as claimed in any one of claims 1 to 3, at a temperature of between 25°C and 60°C, preferably at 37°C, for a sufficient time to allow the deglycosylation of the nucleic acids containing deoxyuridine, and

- b) incubation of said mixture at a temperature of between 60°C and 98°C , preferably between 90°C and 98°C , for a sufficient time to allow the
- denaturation of the anti-uracil-DNA-glycosylase inhibitor antibody and the release of Ugi, and c) amplification of the DNA under appropriate conditions.

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- 15 7. The method as claimed in claim 6, characterized in that the incubation in steps a) and b) is carried out for less than one hour, preferably for 30 s to 30 min, preferably for 5 min to 10 min.
- 20 8. The method as claimed in claim 6, characterized in that the anti-uracil-DNA-glycosylase inhibitor antibody and the uracil-DNA-glycosylase inhibitor form a reversible complex.
- 25 9. A kit for decontaminating nucleic acid amplification reactions, characterized in that it comprises at least one antibody or an antibody fragment as claimed in claim 1 or claim 2, preferably in the form of a reversible complex with the uracil-DNA-glycosylase inhibitor.